

**Langan**

Engineering and Environmental Services, Inc.

ORIGINAL
(REV)

100495

MEMORANDUM

TO: Raj Vyas
CC: Eric Newman
FROM: William Mercurio
DATE: 28 August 1995
RE: Test Pit Plan Water Main
Halby Chemical Site
Delaware

Investigation of Water Main

The objective of the soil sampling in the area of the water main is to evaluate the presence, extent, and degree of soil contamination particularly carbon disulfide. If carbon disulfide soil contamination is present at the water main, additional soil sampling will be performed until the vertical and horizontal extent of contamination is defined adjacent to the water main. The soil sampling locations will be every 50 feet along the 350 foot length of the water main which parallels the drainage ditch. A total of six sampling locations will be sampled.

To evaluate the extent of soil contamination up to 18 soil samples will be collected, a minimum of two samples per test pit and up to three soil samples per test pit. Test pits will be excavated to a maximum depth of six feet and will be oriented perpendicular to the west edge of the water main. Test pits will then be continued perpendicular to the pipeline to try to determine how close to the pipeline contamination may exist. As excavations proceed away from the water line they will be deepened to try to determine the depth of original ground surface. The width of each test pit will be two feet (width of backhoe bucket). No excavation will be performed within two feet of the water main in order to minimize potential damage to the protective coating. The water main will be partially exposed to allow for visual observation.

Soil samples from each test pit will be collected from the base of the water main, the area above the water main and if contamination is found, one additional sample from above the water table with the highest PID field measurement or carbon disulfide drager tube concentration will be collected. The presence of contamination will be evidenced by the PID field measurement, drager tube concentration or visual observation.

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PARAMETER AND METHOD SUMMARY

HALBY CHEMICAL SUPERFUND SITE
WILMINGTON, DELAWARE

<u>Parameter</u>	<u>Method</u>
CLP VOC	SOW OLM01.8
CLP SVOC	SOW OLM01.8
CLP Pest/PCB	SOW OLM01.8
CLP Metals	SOW ILM03.0
CLP Cyanide	SOW ILM03.0
Thiocyanate	<i>To be determined</i>
Weak acid dissociable CN	SM 18th Ed. 4500-CN I.
Zero Headspace TCLP Extraction	SW846 Method 1311
Non-volatile TCLP Extraction	SW846 Method 1311
TCLP VOC	SW846 Method 8240A
TCLP SVOC	SW846 Method 8270A
TCLP Metals	SW846 Method 6010A/7471A
TCLP Pesticides	SW846 Method 8150B
TCLP Herbicides	SW846 Method 8080A
Ignitability	SW846 Method 1020B
Corrosivity	SW846 Method 9045C
Cyanide Reactivity	SW846 Chapter 7.3
Sulfide Reactivity	SW846 Chapter 7.3
pH	SOW OLM01.8

Air Sample Analysis - 48 - 72 hour Turnaround Time

Hexavalent Chromium	NIOSH Method 7600
Arsenic	NIOSH Method 7300
Chromium	NIOSH Method 7300
Lead	NIOSH Method 7300
Cassette Cartridge	
Filter medium (Cellulose Acetate or PVC)	

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